**2**001/032

JAN 1 2 2009

## CARLINEO, SPICER & KEE, LLC

Page 1

## **FACSIMILE TRANSMISSION**

TO:

**USPTO** 

FAX NO.:

571-273-8300

DATE:

January 12, 2009

NO. OF PAGES: 32 including cover

## **CERTIFICATE OF TRANSMISSION UNDER 37 CFR 1.8**

In Re: Patent Application of Charles A. Eldering, et al.

Conf. No.: 2970

Group Art Unit:

Appln. No.: 09/591,577

Examiner: Yehdega Retta

Filing Date: 9 June 2000

Attorney Docket No.: T702-03

Title: Privacy-protected advertising system

I hereby certify that the following correspondence is being facsimile transmitted to the United States Patent and Trademark office:

- 1. Appeal Brief Transmittal in duplicate (2 pgs)
- 2. Appeal Brief

Date: January 12, 2009

**SIGNATURE** 

Customer No.: 81712

Andrew W. Spicer

Typed or printed name of person signing

## JAN 1 2 2009

#### CERTIFICATE OF MAILING/TRANSMISSION (37 CFR 1.8)

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being submitted by First Class mail to the US Patent and Trademark Office: Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450 or transmitted by facsimile to the U.S. Patent and Trademark Office, Fax No. (571) 273-8300.

Date: 1/12/09

Mail Stop Appeal Brief - Patents

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re: Patent Application of Charles A. Eldering, et al.

Conf. No.: 2970

: Group Art Unit: 3622

Appln. No.: 09/591,577

Examiner: Yehdega Retta

Filing Date: 9 June 2000

: Attorney Docket No.: T702-03

Title: Privacy-protected advertising system

Commissioner for Patents P.O. Box 1450

Alexandria, VA 22313-1450

### TRANSMITTAL LETTER

Transmitted herewith is an Appeal Brief in the above-identified application.

The Commissioner is hereby authorized to charge and/or credit Deposit Account No. 504670 as noted below. A duplicate of this sheet is enclosed.

Brief in support of an Appeal filing fee in the amount of \$540.00.

Any overpayments or deficiencies in the above calculated fee(s).

## **CORRESPONDENCE ADDRESS**

Date: January 12, 2009

ad with

Andrew W. Spicer Registration No. 57,420 Carlineo, Spicer & Kee, LLC 2003 South Easton Road, Suite 208

Doylestown, PA 18901

267-880-1720

Customer No.: 81712

## JAN 1 2 2009

#### CERTIFICATE OF MAILING/TRANSMISSION (37 CFR 1.8)

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being submitted by First Class mail to the US Patent and Trademark Office: Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450 or transmitted by facsimile to the U.S. Patent and Trademark Office, Fax No. (571) 273-8300.

Date: 1/12/09

y: Andrew W. Spicer

Mail Stop Appeal Brief - Patents

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re: Patent Application of Charles A. Eldering, et al.

Conf. No.: 2970

Group Art Unit: 3622

Appln. No.: 09/591,577

Examiner: Yehdega Retta

Filing Date: 9 June 2000

Attorney Docket No.: T702-03

Title: Privacy-protected advertising system

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

## TRANSMITTAL LETTER

Transmitted herewith is an Appeal Brief in the above-identified application.

The Commissioner is hereby authorized to charge and/or credit Deposit Account No. 504670 as noted below. A duplicate of this sheet is enclosed.

- Brief in support of an Appeal filing fee in the amount of \$540.00.
- Any overpayments or deficiencies in the above calculated fee(s).

#### CORRESPONDENCE ADDRESS

Date: January 12, 2009

Was - Wing

Andrew W. Spicer Registration No. 57,420

Carlineo, Spicer & Kee, LLC

2003 South Easton Road, Suite 208

Doylestown, PA 18901

267-880-1720

Customer No.: 81712

JAN 1 2 2009

#### CERTIFICATE OF MAILING/TRANSMISSION (37 CFR 1.8)

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being submitted by First Class mail to the US Patent and Trademark Office: Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450 or transmitted by facsimile to the U.S. Patent and Trademark Office, Fax No. (571) 273-8300.

Date: 1/12/09

Andrew W. Spicer

Mail Stop Appeal Brief - Patents

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re: Patent Application of Charles A. Eldering, et al.

Conf. No.: 2970

Group Art Unit: 3622

Appln. No.: 09/591,577

Examiner: Yehdega Retta

Filing Date: 9 June 2000

Attorney Docket No.: T702-03

Title: Privacy-protected advertising system

# APPELLANTS' BRIEF IN SUPPORT OF THE APPEAL TO THE BOARD OF PATENT APPEALS AND INTERFERENCES

In response to the non-final Rejection dated June 19, 2008, and the Notice of Pre-Appeal Brief Review dated December 11, 2008, and further to the Notice of Appeal and Request for Pre-Appeal Brief Conference filed on October 20, 2008, Applicants hereby submit an Appeal Brief in accordance with 37 C.F.R. §41.37 for the above-referenced application.

This paper is being timely submitted on January 12, 2009 (January 11 being a Sunday).

01/13/2009 HMARZI1 00000016 504670 09591577

01 FC:1402

540.00 DA

## (A) REAL PARTY IN INTEREST

The real party in interest is Prime Research Alliance E., Inc., the Assignee of record, which is a wholly owned subsidiary of a privately-owned, non-publicly traded company.

## (B) RELATED APPEALS AND INTERFERENCES

There are no prior or pending appeals, judicial proceedings or interferences known to appellants, the appellants' legal representative, or assignee which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

## (C) STATUS OF CLAIMS

Claims 1 - 132 are canceled.

Claims 140 – 151 were withdrawn in the Response to Restriction Requirement filed on February 9, 2007.

Claims 133 – 139 and 152 – 159 are pending, rejected and are appealed.

**2**008/032

Application No. 09/750,852 Appeal Brief

## (D) STATUS OF AMENDMENTS

No amendment has been filed subsequent to the August 14, 2008 non-final rejection.

## (E) SUMMARY OF CLAIMED SUBJECT MATTER

Please note that references made herein to the "specification" refer to the Substitute Specification submitted with the Declaration of Douglas J. Ryder on July 25, 2003.

The currently pending independent claims in this application are claims 133 and 153. A concise explanation of each independent claim, with reference to the specification follows below.

Independent claim 133 recites:

A method of identifying consumers likely to be interested in an advertisement, the method comprising:

- (a) accessing a plurality of consumer transaction records corresponding to a plurality of consumers and accessing demographic information records corresponding to at least one of the plurality of consumers;
- (b) retrieving heuristic rules, wherein said heuristic rules have been predefined prior to accessing said plurality of consumer transaction records and wherein said pre-defined heuristic rules have been developed based on at least one psychological or sociological study;
- (c) retrieving at least one target consumer characteristic from an advertiser that has been selected at the discretion of the advertiser;
- (d) applying said pre-defined heuristic rules to said plurality of consumer transaction records to generate inferred transaction characteristics of the consumers;
- (e) generating inferred consumer characteristics of at least one of the consumers by associating the inferred transaction characteristics with demographic information records; and
- (f) determining applicability of an advertisement to the at least one consumer by correlating the inferred consumer characteristics with the target consumer characteristics selected at the discretion of the advertiser.

With respect to independent claim 133, the claimed subject matter relates to a method of identifying consumers likely to be interested in an advertisement (see for example, Figs. 1A, 1B and 1C, and paragraphs 11 and 59 of the specification). A plurality of consumer transaction

records corresponding to a plurality of consumers is accessed. (see for example, Fig. 4 and paragraphs 71 – 73 of the specification). A plurality of demographic information records corresponding to the consumers is accessed. (see for example, Fig. 4 and paragraphs 74 and 86 of the specification). Heuristic rules are retrieved (see for example, Fig. 4 and Paragraphs 85, of the specification). The heuristic rules are defined prior to accessing the consumer transaction records and the heuristic rules and have been developed based on at least one psychological or sociological study (see for example, Fig. 12A and paragraph 116). A target consumer characteristic that has been selected at the discretion of an advertiser is retrieved (see for example, paragraphs 159 and 161). The pre-defined heuristic rules are applied to the plurality of consumer transaction records to generate inferred transaction characteristics of the consumers (see for example, Figs. 23 and 26B and paragraphs 167 - 171 and 188 - 191). The inferred transaction characteristics of the consumers are associated with demographic information records to generate inferred consumer characteristics of the consumers (see for example, Fig. 23 and paragraphs 167 - 171). The applicability of an advertisement is determined by correlating the inferred consumer characteristics with the target consumer characteristics selected at the discretion of the advertiser. (see for example, Fig. 23 and paragraphs 170 - 171).

## Independent claim 153 recites:

A method of identifying consumers likely to be interested in an advertisement, the method comprising:

- (a) accessing a plurality of consumer transaction records corresponding to a plurality of consumers and accessing demographic information records wherein each demographic information record corresponds to a consumer transaction record;
- (b) retrieving heuristic rules, wherein said heuristic rules have been predefined prior to accessing said plurality of consumer transaction records and wherein said pre-defined heuristic rules have been developed through the application of at least one heuristic process which incorporates at least two types of analysis selected from the group consisting of logic tests, statistical estimates, self-learning, experiments, market studies, human knowledge and experience;
- (c) retrieving at least one target consumer characteristic from an advertiser that has been selected at the discretion of the advertiser;

- (d) applying said pre-defined heuristic rules to said plurality of consumer transaction records to generate inferred transaction characteristics of the consumers;
- (e) generating inferred consumer characteristics of at least one of the consumers by associating the inferred transaction characteristics with a corresponding demographic information record of the consumer; and
- (f) determining applicability of an advertisement to the at least one of the consumers by correlating the inferred consumer characteristics with the target market characteristics selected at the discretion of the advertiser.

The subject matter of independent claim 153 is similar to that of independent claim 133 described above. In claim 153 the heuristic rules have been developed through the application of at least one heuristic process that incorporates at least two types of analysis selected from the group consisting of logic tests, statistical estimates, self-learning, experiments, market studies, human knowledge and experience (see for example, paragraph 188 of the specification).

## (F) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The following ground of rejection is presented for review in this appeal:

Whether claims 133 - 139 and 152 - 159 are unpatentable under 35 U.S.C. §103(a) over U.S. Patent No. 6,463,585 to Hendricks et al. ("Hendricks") in view of U.S. Patent No. 6,120,300 to Ho et al. ("Ho") further in view of U.S. Patent No. 5,835,905 to Pirolli et al. ("Pirolli").

## (G) <u>ARGUMENTS</u>

(1) Rejection under 35 U.S.C. §103(a) over Hendricks in view of Ho in further view of Pirolli

## (a) Claims 133 – 139 and 152

The Examiner has not established a *prima facie* case of obviousness to support the rejection of claims 133 – 139 and 152 because (i) all features of the claims are not taught by the proposed combination; (ii) such combination of references is improper; and (iii) at least one of the references relied on is non-analogous art.

Hendricks teaches a system for allowing targeted advertising to be directed to television terminals connected to an operations center or cable headend via a switched digital video network. Supplemental feeder channels are used to carry a plurality of advertisements that can be inserted into a viewing channel during an advertisement opportunity. Viewers are arranged according to a group assignment plan based upon factors such as area of dominant influence, ZIP code, and household income. A switching plan is used to determine whether to substitute the existing advertisement with an advertisement from a feeder channel, and if so, which feeder channel should be utilized. Hendricks describes the components responsible for selecting advertisements based upon viewer-based data only as "correlation algorithms" which causes a "correlation of demographic information with buy information." See Hendricks, column 44, lines 7-23 and column 69, line 61 – column 76, line 11.

Ho teaches a "computer-aided educational system," where students are rewarded for attaining milestones in a particular subject area. These subject areas are broken into "line-items" of various difficulties. In each subject area these line-items act as milestones, wherein a student completes the line-item and they are given a reward. Various algorithms are used for determining when a milestone is achieved and what reward is offered.

Pirolli teaches a predictive system for document retrieval. Pirolli's system extracts and analyzes information related to a series of documents to categorize and eventually predict what documents may be relevant to a given submitted document. The focus of the system's predictive function is the "path information," which analyzes the locality of a document on a network, such as the World Wide Web. Meta data, in the form of document vectors, have criteria applied to find documents believed to be similar to the target document. Thus, Pirolli m makes predictions by focusing on network topology.

## i. The Proposed Combination Does Not Teach or Suggest All Claim Elements

When making a rejection under 35 U.S.C. § 103, the prior art references, when combined, must teach or suggest all of the claim limitations. *See* MPEP 2143.03. The combination of Hendricks, Ho and Pirolli, even if proper, does not teach or suggest all of the features of Applicants' claims.

The combination of Hendricks, Ho and Pirolli does not teach or suggest psychological or sociological studies nor does such combination teach the use of pre-defined heuristic rules. Specifically, Applicants contend that neither Hendricks nor Ho teaches "pre-defined heuristic rules [which] have been developed based on at least one psychological or sociological study," as recited in claim 133.

Initially, the Examiner argues that, "Hendricks teaches determining characteristic of the consumer or generating a simulated profile using an algorithm that analyzes access history and viewing habits (based on psychological or sociological or behavior)." (Non-Final Office Action dated June 19, 2008, p. 2 (hereinafter "June Office Action")). However, in the same June Office Action, the Examiner later states that Applicants assert that, "Hendricks does not disclose a rule that is based on a psychological or sociological study. Examiner now provides Ho for the teaching of heuristic rules that [have] been developed [from] outside studies prior to the implementation of the system." (June Office Action, p. 6). Applicants respectfully submit that the Examiner thus agrees that Hendricks does not teach or suggest psychological or sociological studies.

With respect to Hendricks, the Examiner has continually relied on column 66, line 53 – column 67, line 4 of Hendricks in support of the allegation that Hendricks teaches the feature of

psychological or sociological studies. (See June Office Action, p. 2). However, Hendricks teaches nothing more than estimating a characteristic of one viewer based on "test information generated from a statistically significant number of viewers," and makes no mention of a psychological or sociological study in this or any other portion of its disclosure. Hendricks column 66, lines 61 – 62. As such, Hendricks does not teach or suggest, "pre-defined heuristic rules [which] have been developed based on at least one psychological or sociological study."

The Examiner contends that Hendricks' use of, "test information generated from a statistically significant number of viewers," is a behavioral element and that any behavioral element is the equivalent of a psychological or sociological study. (See June Office Action, p. 2, "psychological or sociological or behavior"; see also the Examiner's Interview Summary dated August 14, 2008 (hereinafter "Examiner's Interview Summary"), where the Examiner states, "Examiner explained that psychological or sociological study is interpreted to mean behavioral study.") Hendricks, however, does not even teach a "study" generally, let alone a behavioral study. Rather, Hendricks, uses information from previous users to generate an estimation of a particular viewer's demographics. See Hendricks, column 66, lines 58 - 65. At most, this constitutes the use of a behavioral element, where previous user's behaviors yield a direct prediction of the current user's demographics. Such analysis cannot be viewed as study. In fact, Hendricks is quite clear that this prediction is simply "an algorithm," which "statistically compare[s] the viewer's programs watched" to that of previous viewers. A simple comparison cannot be viewed as a "study" under any circumstances. Even if Hendricks' use this information were viewed as a study, this type of test information certainly cannot be viewed as a psychological or sociological study, since there is nothing psychological or sociological about it.

Furthermore, as a general matter, Applicants respectfully submit that a behavioral study is not equivalent to a psychological or sociological study. The Examiner has repeatedly failed to provide an explanation or any support for this contention, even when asked directly. (See Examiner's Interview Summary and Applicants' Interview Summary dated October 20, 2008 (hereinafter "Applicants' Interview Summary")). The Examiner is unable to explain this because a study based on behavior is simply not equivalent to a psychological or sociological study. Specifically, many behaviors are not related to psychology or sociology, and a psychological or sociological profile of an individual is not similar to a behavioral profile of an individual. Thought

of another way, a psychological study makes conclusions about an individual's psychology, not their behavior. A sociological study makes conclusions about societal interactions, not an individual's behavior. A behavioral study only makes conclusions about an individual's behavior and does not account for an individual's psychology or sociology. Moreover, Hendricks' teaching of using behavioral test information certainly does not result in any psychological or sociological conclusions. Thus, Hendricks does not teach or suggest all of the features as alleged by the Examiner.

Similarly, Ho does not teach "pre-defined heuristic rules [which] have been developed based on at least one psychological or sociological study." In an attempt to explain how Ho teaches psychological or sociological studies, the Examiner argues that, "Ho used heuristic rule to determine or predict unknown user's characteristics by statistics based on the preference of similar students (user behavior or action which a psychological or sociological study)." (June Office Action, p. 6). This quotation represents the entire portion of the Office Action discussing Ho's alleged teaching of psychological or sociological studies. Stated differently, the Examiner cannot point to any portion of that implicitly or explicitly teaches the use of psychological or sociological studies.

A close reading of Ho describes what the Examiner repeatedly refers to as using "user behavior" to make a decision, but does not describe anything relevant to psychological or sociological studies. Ho teaches that a determination of potential rewards, "can be heuristically determined by statistics based on the preferences of similar students." Ho, column 7, lines 5 – 7. Initially, the Applicants note that just because Ho uses the word "heuristic" does not mean that Ho teaches "pre-defined heuristic rules [which] have been developed based on at least one **psychological or sociological study**." Rather, Ho merely teaches that the preferences of similar students are known through previous actions of the system and a determination is made based on this similarity. However, such a teaching does not describe or even suggest a psychological or sociological study, and certainly does not teach the use of "pre-defined heuristic rules [which] have been developed based on at least one psychological or sociological study." First, there is no mention, suggestion or other notion in Ho which relates to anything psychological or sociological; Ho performs a simple one to one comparison of the preferences of similar students. As discussed above in reference to Hendricks, this type of comparison merely matches behavioral elements and

is not based on a psychological or sociological study. Second, there is nothing in Ho to suggest that user <u>behavior</u> is psychological or sociological, is based on psychology or sociology, or has anything to do with psychology or sociology. Finally, there is no mention in Ho, implicitly or explicitly, of any study.

Additionally, Applicants note that even if Ho's teaching of a behavioral element was related to a psychological or sociological study, Ho still would not fill the gap which is left by Hendricks. Claim 133 recites, "pre-defined heuristic rules [which] have been developed based on at least one psychological or sociological study." Ho teaches a list that, "can be heuristically determined by statistics based on the preferences of similar students." Ho, column 7, lines 5 – 7. Applicants are uncertain how (1) Ho's determination is a rule; and (2) how anything within Ho's process is pre-defined. Ho's description of a list that can be "heuristically determined" expresses a current action (i.e., a current determination) – not a rule defined or established prior to the action itself. The fact that Ho's determination is a current action, specifically excludes it from teaching a rule which has been pre-defined or developed based on a study, since it is developed at the moment of implementation. Furthermore, since the heuristic determination in Ho occurs at the time of making the decision, there is nothing "pre-defined" about the system. How can an action be predefined if it relies on a real-time determination (heuristic or otherwise)?

Accordingly, even if the references were combined as proposed by the Examiner, such combination would still lack the teaching or suggestion of at least the elements of independent claim 133 discussed above. For this reason alone, Applicants respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness with respect to independent claim 133.

## ii. Hendricks, Ho and Pirolli are not Properly Combinable

In KSR, the Court stated that it was "important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed. KSR Int'l Co. v. Teleflex Inc. 127 S. Ct. 1727 (U.S. 2007). It is important to determine whether there was an "apparent reason to combine the known elements in the fashion

claimed by the patent at issue." See KSR. The Court noted, "[t]o facilitate review, this analysis should be made explicit." See KSR. Therefore, the Examiner must identify the reason why a person of ordinary skill in the art would have combined the prior art elements in the manner claimed: "Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." KSR, citing In re Kahn, 441 F. 3d 977, 988 (CA Fed. 2006).

The Examiner has failed to point to or otherwise establish an "apparent reason to combine the known elements in" Hendricks, Ho or Pirolli, and instead relies on a vague unexplained notion that one of ordinary skill in the art would have a desirability to combine these references. See KSR. As stated in MPEP 2143.01 IV: a mere "statement that modifications of the prior art to meet the claimed invention would have been 'well within the ordinary skill of the art at the time the claimed invention was made' because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a prima facie case of obviousness." This is precisely what the Examiner has attempted to do. When Applicants explicitly asked for the apparent reason relied on (or any other reason that could be provided by the Examiner) to combine the elements that allegedly teach all elements of Applicants' claims, the Examiner's only response is that "Ho used heuristic rule to determine or predict unknown user's characteristics by statistics based on the preference of similar students (user behavior or action which a psychological or sociological study)." (See June Office Action, p.6). This is simply a restatement of the feature which the Examiner alleges is in Ho, but the Examiner does not allege an "apparent reason to combine the known elements in the fashion claimed by the patent at issue," as required under KSR. Merely pointing out the existence of particular teachings in one reference is not sufficient to establish that there would be a motivation to combine that reference with another. The Examiner has made only a "conclusory statement" and has failed to articulate reasoning "with some rational underpinning to support" the contention. (See MPEP 2143.01 IV quoting KSR). The burden is on the Examiner to provide a convincing line of reasoning, based on knowledge generally available to one of ordinary skill in the art, established scientific principles or legal precedent, that there would have been a motivation to combine Hendricks, Ho and Pirolli. (See MPEP 2144.) Not only has the Examiner failed to meet this burden, the Examiner has not even attempted to meet this burden.

Furthermore, Applicants respectfully submit that one skilled in the art would not look to Ho (directed to an educational tool) to modify the teachings of Hendricks (directed to a targeted video advertising system) to result in Applicants' claimed subject matter. Thus, such a proposed combination of Hendricks, Ho and Pirolli does not make "common sense." See KSR.

Accordingly, the proposed combination of Hendricks, Ho and Pirolli is improper.

#### iii. Ho is not analogous prior art

Applicants respectfully submit that Ho is not analogous prior art to the claimed subject matter or to Hendricks, and is therefore not properly combinable with Hendricks and Pirolli. The MPEP states, "the Examiner must determine what is 'analogous prior art' for the purposes of analyzing the obviousness of the subject matter at issue...a reference in a field different from that of applicant's endeavor may be reasonably pertinent if it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his or her invention as a whole." (MPEP 2141.01(a)). This means that a prior art reference, in a field different from that of Applicants' endeavor, is <u>not</u> reasonably pertinent if it does not logically commend itself to the inventor's attention.

Ho cannot be viewed as being in Applicants' field of endeavor. MPEP 2141.01(a) affirmatively states that "class definitions are some evidence of 'nonanalogy'", adding that the "function of the invention" carries greater weight. Here, the USPTO's classification system places Ho in class 434 ("education and demonstration"), whereas the present application is identified as class 705 (data processing: financial, business practice, management, or cost/price determination). Accordingly, at least on the basis of class definition, Ho is not within Applicants' field of endeavor.

Furthermore, a substantive reading of Ho suggests that Ho is not in the same field of endeavor as the pending application. This is due to the Ho being directed to a purely educational tool. There is no discussion of targeted advertising or broadcast programming, which is clearly the field of endeavor of the current application. Thus, to be applicable, Ho must have "logically ... commended itself to [the] inventor's attention in considering his problem." (MPEP 2141.01(a)).

However, prior art directed to a "computer-aided educational system and method for rewarding a student when the student attains a milestone in a subject," (i.e., Ho; see Abstract) would not have logically "commended itself to [the] inventor's attention," while developing systems and processes in broadcast advertising. Ho, in its entirety, focuses on tracking students, determining milestones and granting students awards based on these milestones. Ho is not concerned with advertising or profiling and does not otherwise suggest that Ho's system as a whole or any sub-system thereof would work or be desirable outside of the student or educational environment. Therefore, Ho would not have "commended itself" to the inventor's attention, and is not analogous to or Applicants' application and/or claimed subject matter.

Accordingly, the application of Ho to the presently pending claims and/or its proposed combination with Hendricks and/or Pirolli to result in Applicants' claimed subject matter is improper. As such, Applicants respectfully submit that the Examiner has failed to establish a prima facie case of obviousness with respect to independent claim 133

Dependent claims 134 - 139 and 152 are allowable at least by their dependency on independent claim 133.

### (b) Claims 153 - 159

The Examiner has not established a *prima facie* case of obviousness to support the rejection of claims 153 - 159 because all features of the claims are not taught by the proposed combination and such combination is improper.

#### i. The Proposed Combination Does Not Teach or Suggest All Claim Elements

The Examiner does not allege that all elements of claim 153 are taught by the proposed combination, nor has the Examiner responded in any substantive way to Applicants' response to the Examiner's previous rejection. The relevant portion of claim 153 recites:

retrieving heuristic rules, wherein said heuristic rules have been pre-defined prior to accessing said plurality of consumer transaction records and

wherein said pre-defined heuristic rules have been developed through the application of at least one heuristic process which incorporates at least two types of analysis selected from the group consisting of logic tests, statistical estimates, self-learning, experiments, market studies, human knowledge and experience.

Rather than addressing the subject matter of claim 153 in any manner, the Examiner has repeatedly provided the same exact rejection as that applied to claim 133. Independent claim 133 in no way recites, "at least two types of analysis selected from the group consisting of logic tests, statistical estimates, self-learning, experiments, market studies, human knowledge and experience," as recited in claim 153. When specifically asked about this failure in the August 5<sup>th</sup> interview, the Examiner was unable to respond. (See Applicants' Interview Summary). In fact, the Examiner appears to completely deny the existence of claim 153 and its substance, as the Examiner did not even mention the discussion of this claim in the Examiner's Interview Summary. (See both Examiner's Interview Summary and Applicants' Interview Summary).

Regardless, Ho does not teach or suggest a "heuristic rule which has been developed through the application of at least two types of analysis selected from the group consisting of logic tests, statistical estimates, self-learning, experiments, market studies, human knowledge and experience." Using the reasoning applied to claim 133, the Examiner relies on Ho as teaching this feature of claim 153. In Ho, a reward "can be heuristically determined by statistics based on the preferences of similar students ... such information can be found through market research." (Ho, column 7, lines 5-10). As such, Ho fails to teach the claimed feature in two ways. First, at most, Ho only recites one type of analysis in its determination process, and not applying two types analysis out of the claimed group. Second, Ho fails to teach the development of a heuristic rule. As is plainly seen in Ho, "such information can be found through market research." This is the only factor in the decision making process. Therefore, Ho cannot be viewed as applying a rule developed through the application of two types of analysis, as recited in independent claim 153.

Additionally, just as in the analysis with respect to claim 133, Ho fails to teach the development of a heuristic rule, but rather teaches the application of a heuristic process. Ho's description of a list that can be "heuristically determined" expresses a current action (i.e., a current determination) – not a rule defined or established prior to the action itself. The fact that Ho's determination is a current action, specifically excludes it from teaching a rule which has been pre-

defined or developed based on a study, since it is developed at the moment of implementation. Furthermore, since the heuristic determination in Ho occurs at the time of making the decision, there is nothing "pre-defined" about the system.

Accordingly, even if the references were combined as proposed by the Examiner, such combination would still lack the teaching or suggestion of at least the elements of independent claim 153 discussed above. For this reason alone, Applicants respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness with respect to independent claim 153.

## ii. Improper Combination / Non-analogous Art

For the same reasons set forth above with respect to claims 133 – 139 and 152, the proposed combination of Hendricks, Ho, and Pirolli is improper and Ho is a non-analogous reference.

Accordingly, for all of these reasons, Applicants respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness with respect to independent claim 153.

Claims 154 – 159 are allowable at least by their dependency on independent claim 153.

In view of the foregoing, Applicants respectfully submit that the combination of Hendricks, Ho and Pirolli is thus improper since there is no apparent reason to combine the references, such combination would not make common sense and the combination includes non-analogous art. Even assuming the references were properly combinable, which they are not, all features of the claims would still not be taught by the combination. Therefore, the Examiner has not met the burden of *prima facie* obviousness. Accordingly, for the reasons detailed herein, independent claims 133 and 153, and all claims dependent thereon, including claims 134 – 139, 152 and 154 – 159, are allowable over the combination of Hendricks, Ho and Pirolli.

Conclusion

PAGE 23/23 \* RCVD AT 1/12/2009 4:54:55 PM [Eastern Standard Time] \* SVR:USPTO-EFXRF-4/16 \* DNIS:2738300 \* CSID:267 880 1721 \* DURATION (mm-ss):21-40